Attachment 6 1 **CLOSURE PLAN** 2 3 [6 CCR 1007-3 § 100.41(a)(13); § 264 Subpart G] 4 5 6.0 Introduction 6 7 8 This Closure Plan describes performance standards and procedures to clean close the following hazardous 9 waste management units: 10 11 G203 G1009 12 13 G1107 G1109 14 15 G1110 16 Building 540. 17 18 Upon completion of operational hazardous waste management activities, Pueblo Chemical Depot (PCD) 19 hazardous waste management units will be clean closed in accordance with the requirements of 6 Colorado Code of Regulations (CCR) 1007-3 § 264 Subpart G. This Closure Plan describes 20 21 performance standards and procedures to clean-close the Resource Conservation and Recovery Act 22 (RCRA) permitted hazardous waste management units. This plan presents methods to dispose of all (agent-related and non agent-related) hazardous wastes and contaminated materials; to identify nature and 23 24 extent of areas contaminated with hazardous waste constituents of concern; perform decontamination; perform verification sampling to confirm successful decontamination; and document clean closure 25 certification. 26 27 28 6.1 **General Description** 29 30 PCD stores and manages agent-related wastes in RCRA permitted hazardous waste management 31 units G203, G1009, G1107, G1109, and G1110 as well as non agent-related hazardous wastes in Building 540. Waste chemical munitions stored at PCD contain the chemical mustard agent (distilled 32 sulfur mustard [HD]/mustard-T mixture [HT]). If an HD or HT chemical munition is suspected of 33 leaking or known to be leaking, the munition is overpacked and stored in one of the five RCRA-permitted 34

- agent-related hazardous waste management units, G203, G1009, G1107, G1109, and G1110. Material
- 2 such as personal protective equipment (PPE) or dunnage contaminated from handling leaking munitions
- 3 is stored in RCRA hazardous waste management unit G1110. Hazardous wastes that are not
- 4 agent-related, such as wastes from PCD administrative and warehouse areas as well as wastes from
- 5 remediation activities, are containerized and stored in Building 540 for up to 1 year. The specific agent-
- 6 related and non agent-related wastes in PCD RCRA-permitted hazardous waste management units

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• RCRA-Permitted Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110. Mustard agent-related waste such as overpacked, leaking 105mm, 155mm projectiles, and 4.2-inch mortars are stored in G203, G1009, G1107, G1109, and G1110. Agent-contaminated material, including PPE, dunnage, contaminated pallets, and other agent-contaminated materials such as spent activated carbon adsorbers are stored in G1110.

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• Building 540 (Container Storage Area). Building 540 is used to store non agent-related hazardous wastes until they can be transferred to an approved treatment, storage, or disposal facility. These wastes include waste paint and thinners; PCD Analytical Laboratory wastes (various solvents, acids, bases, and alcohols used for analyses); waste batteries and battery acid; contaminated soils, sediment, or water from the remediation of Solid Waste Management Units (SWMUs); used Interim Corrective Action Groundwater Remediation System (ICAGRS) filters; waste starter fluids; used PPE (associated with remediation activities); universal wastes such as fluorescent bulbs; and spent carbon from groundwater treatment systems.

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Figure 6-1¹ presents an example of a RCRA-permitted hazardous waste management unit (similar to G203, G1009, G1107, G1109, and G1110) at PCD. **Figure 6-2** provides an illustration of the RCRA-permitted Building 540 floor plan. The closure activities for each unit reflect the requirements and considerations appropriate to the types of wastes stored in the unit.

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All figures are located at the end of this section.

6.2 Closure Strategy

This section describes the closure strategy for the agent-related and non agent-related RCRA-permitted hazardous waste management units.

6.2.1 RCRA-Permitted Agent-related Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110 Closure Strategy

Prior to beginning closure activities, all wastes will have been removed from the storage units and properly disposed per Colorado Hazardous Waste Regulations. Decontamination of the hazardous waste management units and associated equipment will begin after all waste process activities have been completed. Identifying nature and extent of contamination, performing decontamination, and verifying adequate decontamination will be performed in a phased approach that involves:

• Identifying the extent of areas contaminated with hazardous constituents of concern. This identification will be based as a minimum on: air monitoring analytical results, known/recorded spills, surface sampling and analysis (concrete chips), review of the inspection and operating records, visual inspection to look for possible/likely waste migration areas including but not limited to cracks, gaps, and joints, plus indicators such as stains and discolorations of the storage unit floor and adjoining berms/walls. **Table 6-1**² presents the decision-making process that will be used to identify constituents of concern for hazardous waste management units G203, G1009, G1107, G1109, and G1110. If constituents of concern are identified that are not included in **Table 6-2**, the Permittee shall submit a permit modification request to add the constituents to **Table 6-2** following the procedures for a Class 2 permit modification in 6 CCR 1007-3 §100.63.

Performing decontamination using suitable decontamination methods and techniques³
 based on the chemicals of concern that were identified. All spent decontamination solutions and materials will be collected, contained and managed appropriately as

All tables are located at the end of this section.

Based on visual inspection of the storage units, appropriate decontamination methods and techniques used are based on 6 CCR 1007-3 § 268.45, Table 1.

hazardous waste. Surface decontamination will be performed followed by air monitoring 1 2 to verify adequate decontamination. 3 4 Performing air monitoring details of which are subject to Division approval prior to implementation (compliance section) to confirm decontamination of agent-contaminated 5 surfaces. Additionally, the Permittee will conduct a final rinse to confirm 6 7 decontamination for areas where contamination or potential contamination with 8 hazardous waste constituents has been identified. The final rinse-water volume used for 9 each decontaminated area must not exceed the minimum amount necessary to collect an 10 adequate sample volume for analysis and to completely contact the decontaminated area. 11 Air monitoring and rinse-water analytical results will be compared against the 12 decontamination verification criteria listed in **Table 6-2**. If results do not meet the closure performance standards (Table 6-2), decontamination will be repeated until 13 14 closure performance standards are met. 15 Sampling and analyzing air and concrete chip samples for chemicals of concern to verify 16 17 clean closure details of which will be included as an item in the compliance section. If 18 analytical results do not meet the closure performance standards (**Table 6-2**), the RCRA-19 permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 will be decontaminated until closure performance standards are met or the materials will 20 21 be disposed of as RCRA hazardous wastes. 22 23 Collecting, characterizing, and managing wastes generated from closure activities. 24 25 Certifying clean closure of the hazardous waste management units. 26 27 Once air monitoring results meet the decontamination verification criteria, final sampling will be 28 conducted. This final sample will be segregated from previous samples to verify adequate 29 decontamination. Sampling results will be compared against the closure performance standards listed in 30 **Table 6-2.** 31 32 The RCRA-permitted hazardous waste management unit air filtration system will remain operating and 33 monitoring will be conducted until air monitoring results are received and verified. For closure 34 verification purposes, the vents and doors to the unit will be kept closed from at least 4 hours prior to the 35 start of air monitoring until closure verification air monitoring is complete for the unit.

1 2 The units will be deemed clean closed when air monitoring results and any other required analytical 3 results meet the closure performance standards in Table 6-2. 4 6.2.1.1 Sampling to Confirm Decontamination and Determine Clean Closure - G203, G1009, 5 G1107, G1109, and G1110 6 7 8 Air monitoring will be conducted to confirm adequate decontamination and will be used to determine 9 clean closure in conjunction with any other required analytical results demonstrating that no other 10 hazardous waste constituents remain above human health risk-based levels. Air samples for mustard 11 agent will be collected using MINICAMS or DAAMS. Confirmation monitoring for mustard agent will be performed using DAAMS or other confirmatory method approved by the Colorado Department of 12 13 Public Health and Environment, Hazardous Materials and Waste Management Division (the "Division") 14 that can detect to the concentration required for closure. Samples will be collected as identified in 15 **Table 6-3**, which summarizes the sampling and analysis methods that will be used to identify 16 contamination and confirm decontamination. 17 6.2.1.2 Air Sampling of Structures or Equipment - G203, G1009, G1107, G1109, and G1110 18 19 Air sampling of the interior air of the RCRA-permitted hazardous waste management units G203, G1009, 20 21 G1107, G1109, and G1110 will be performed. **Table 6-4** summarizes the air sampling requirements. 22 23 During closure activities, personnel will use appropriate personal protective clothing and equipment as 24 determined by the PCD Site Health and Safety Officer. In general, Department of the Army Pamphlet (DA Pam) 385-61, Toxic Chemical Agent Safety Standards, will be followed, as well as Occupational 25 26 Safety and Health Administration (OSHA) safety standards. 27 6.2.2 Non Agent-Related Hazardous Waste Storage Unit Building 540 Closure Strategy 28 29 30 Prior to beginning closure activities, all wastes will have been removed from Building 540. 31 Decontamination of the hazardous waste management units and associated equipment will begin after all 32 waste process activities have been completed. Identifying contamination, performing decontamination, 33 and verifying adequate decontamination will be performed in a phased approach that involves: 34

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- 1 Identifying areas contaminated with hazardous constituents of concern. This 2 identification will be based on known/recorded spills, a review of the inspection and operating records as well as a visual inspection to look for cracks, gaps, stains, and 3 4 discoloration of the storage unit floor and adjoining berms. **Table 6-1** presents the decision-making process that will be used to identify constituents of concern for Building 5 540. The Permittee shall submit a permit modification request to add the identified 6 7 constituents of concern to **Table 6-5** following the procedures for a Class 2 permit 8 modification in 6 CCR 1007-3 §100.63. 9 Performing decontamination using suitable decontamination methods and techniques⁴ 10
 - Performing decontamination using suitable decontamination methods and techniques⁴ based on the chemicals of concern that were identified. All spent decontamination solutions and materials will be collected, contained and managed appropriately as hazardous waste. Surface decontamination will be performed followed by clean water rinses based on the constituents of concern that were identified to verify adequate decontamination.
 - Sampling and analyzing rinsewaters and concrete chip samples for chemicals of concern to verify clean closure. If analytical results do not meet the closure performance standards in **Table 6-5**, Building 540 will be decontaminated until closure performance standards are met or the contaminated areas will be disposed of as RCRA hazardous wastes.
 - Collecting, characterizing, and managing wastes generated from closure activities.
 - Certifying clean closure of the hazardous waste management units.

When decontamination verification criteria have been satisfied, a final rinsewater sampling will be conducted. The final rinsewater volume used for each bermed hazardous waste segregation area in Building 540 must not exceed the minimum amount necessary to collect an adequate sample volume for analysis and to completely contact the floor of the bermed area. This final sample will be segregated

Based on visual inspection of the storage units, appropriate decontamination methods and techniques used are based on 6 CCR 1007-3 § 268.45, Table 1.

1	from previous samples to verify adequate decontamination. Rinsewater sampling results will be
2	compared against the closure performance standard values listed in Table 6-5.
3	
4	Building 540 will be deemed clean closed when rinsewater and concrete chip sampling results meet the
5	closure performance standards in Table 6-5 or the contaminated areas are disposed of as RCRA
6	hazardous wastes.
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8	6.2.2.1 Sampling to Confirm Decontamination and Determine Clean Closure – Building 540
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10	Rinsewater and/or concrete chip sampling will be conducted to confirm decontamination and determine
11	clean closure. Rinsewaters and/or concrete chip samples will be collected in appropriate containers,
12	depending on the volume or location of the rinsewater and/or concrete chip sample collection. Samples
13	for Building 540 will be collected as identified in Table 6-6 .
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15	6.2.2.2 Air Sampling of Structures or Equipment – Building 540
16	
17	Based on an assessment of Building 540 at the time of closure, air monitoring will be conducted, if
18	necessary.
19	
20	Closure Performance Standard [6 CCR 1007-3 § 100.41(a)(13) and § 264.111]
21	
22	For the agent-related hazardous waste management units G203, G1009, G1107, G1109, and G1110, the
23	closure performance standard for air monitoring of mustard agent is based on the RCRA-permitted
24	hazardous waste management unit interior air sampling and analysis and is established as the General
25	Population Limit (GPL) as shown in Table 6-2 .
26	During closure activities, personnel will use appropriate personal protective clothing and equipment as
27	determined by the PCD Site Safety and Health Officer. In general, DA Pam 385-61, Toxic Chemical
28	Agent Safety Standards, will be followed, as well as OSHA safety standards.
29	
30	6.4 Partial Closure and Final Closure Activities [6 CCR 1007-3 § 100.41(a)(13) and
31	§ 264 Subpart G]
32	
33	The decontamination of individual RCRA-permitted hazardous waste management units may be
34	performed if the storage capacity is deemed unnecessary for the continued management of hazardous

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1 waste. These partial closure activities are subject to completion in accordance with the provisions of this 2 closure plan. 3 4 6.5 **Maximum Waste Inventory** [6 CCR 1007-3 § 100.41(a)(13) and § 264 Subpart G] 5 The maximum inventory of wastes that may be stored onsite at any time during the active life of PCD 6 7 hazardous waste units in accordance with 6 CCR 1007-3 § 264.112(b)(3) is provided in **Table 6-7**. 8 9 6.6 Disposal or Decontamination of Equipment, Structures, and Soils [6 CCR 1007-3 10 § 100.41(a)(13) and § 264 Subpart G] 11 12 PCD hazardous waste management unit structures will be decontaminated, and equipment will be decontaminated to a level that permits safe disposal. Decontamination will be accomplished according to 13 14 the strategy described in Section 6.2 of this plan. The selected decontaminant and decontamination 15 technique will depend on the contaminant of concern. For example, the use of bleach (sodium 16 hypochlorite) is a standard decontamination technique for chemical agent-contaminated non-porous 17 surfaces (metal, glass, plastic, etc.) and is identified as a suitable decontaminant under chemical destruction technology in 6 CCR 1007-3 § 268.45, Table 1. Similarly, detergent and water washing is 18 19 identified as an appropriate chemical extraction technique for heavy metals and steam cleaning is identified as an appropriate extraction technology in 6 CCR 1007-3 § 268.45, Table 1, for most 20 21 contaminants. The decontamination/cleaning solutions are generally applied manually through use of a spray device or by wiping down with cloth or paper towels and wipes. Other decontamination methods as 22 23 described in 6 CCR 1007-3 § 268.45, Table 1, such as physical extraction (spalling, high pressure steam 24 and water sprayers), may also be used if appropriate. 25 26 Should it be determined at the time of closure that soil removal or remediation is required; the Closure 27 Plan will be modified in accordance with 6 CCR 1007-3, § 100.63 to address such issues. 28 6.6.1 29 **Closure of Containers** [6 CCR 1007-3 § 100.41(a)(13) and § 264 Subpart G] 30 31 All hazardous wastes will be removed from the storage units before beginning closure. Closure strategy 32 is described in **Section 6.2**. 33

6.6.2 1 Ancillary Closure Activities [6 CCR 1007-3 § 100.41(a)(13) and § 264 Subpart G] 2 3 The closure of the hazardous waste management units and associated equipment will be completed 4 according to the closure strategy outlined in **Section 6.2**. 5 **6.7** 6 **Schedule for Closure** [6 CCR 1007-3 § 100.41(a)(13) and § 264 Subpart G] 7 8 According to 6 CCR 1007-3 § 264.112(e), PCD personnel may remove hazardous wastes and 9 decontaminate or dismantle equipment in accordance with the approved Closure Plan at any time before 10 notification of final closure. Such activities will be considered a partial closure. 11 PCD shall notify the Colorado Department of Public Health and Environment (CDPHE) in writing at least 12 13 45 days prior to the date on which final closure activities of PCD hazardous waste management units are 14 expected to commence. The anticipated notification date is no later than 30 days after the date on which a 15 PCD hazardous waste management unit receives the known final volume of hazardous waste. 16 17 No shipments of hazardous waste will be received at a specific PCD hazardous waste management unit after the first day of the unit-specific closure period. Within 90 days of receiving the final hazardous 18 19 waste volume, all hazardous waste stored in the hazardous waste management unit undergoing closure 20 will be transferred to a treatment, storage, and disposal facility. Partial and final closure activities will be 21 completed within 180 days of receiving the final volume of hazardous waste. Residual materials identified in storage facilities will be sampled and analyzed within 30 days of the initiation of closure, and 22 23 will be disposed of within 90 days. The storage units will be sampled and samples will be analyzed 24 within 30 days. Samples will be disposed of in 90 days. If necessary, the concrete pads and buildings 25 will be tested and disposed of within 180 days. 26 27 Within 160, but not later than 240, days after initiating final closure activities, PCD shall submit to CDPHE an independent, qualified, Colorado-registered Professional Engineer's certification of 28 29 completion of closure in accordance with the final, unit-specific Closure Plan. The certification will be 30 signed by the PCD Facility Commander and the Professional Engineer. 31 32 6.8 **Extension for Closure Time** [6 CCR 1007-3 § 100.41(a)(13) and § 264 Subpart G] 33 If activities associated with removal of all hazardous waste require more than 90 days, a request for an 34 extension to complete this activity will be made at least 30 days before the initial 90-day time period 35

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2 the final hazardous waste volume, a request for an extension to complete the activities will be made at 3 least 30 days before expiration of the initial 180 days. 4 5 6.9 Certification of Closure [6 CCR 1007-3 § 100.41(a)(13) and § 264 Subpart G] 6 Within 240 days of initiating final closure activities, the U.S. Army will submit a certification signed by 7 8 the PCD Commander and an independent Colorado-registered Professional Engineer, that the hazardous 9 waste management units have been closed in accordance with the approved Closure Plan and all 10 applicable regulations. Documentation of closure activities will be maintained by the certifying 11 independent registered Professional Engineer and the Army. Documentation and information supporting the closure status of PCD hazardous waste management units will be maintained and provided to CDPHE 12 13 upon request, which includes: 14 All field notes related to closure activities 15 16 17 A description of any minor deviations from the approved Closure Plan and justification for these deviations 18 19 20 Documentation of the final disposition of all hazardous wastes and residual hazardous 21 wastes, including contaminated media, debris, and all treatment residues 22 23 All laboratory and/or field data, including quality assurance/quality control data, for all 24 samples and measurements 25 26 A summary report that itemizes the data reviewed by the certifying engineer and 27 tabulates the analytical results of samples taken to determine and/or confirm clean 28 closure. 29 30

expires. If partial and final closure activities cannot be completed within 180 days following receipt of

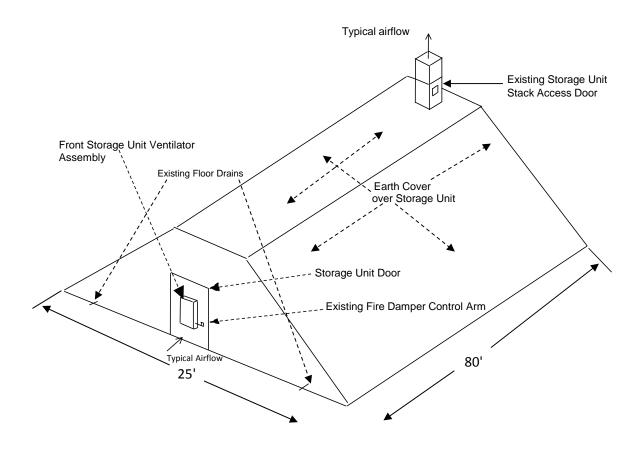


Figure 6-1 Example of a RCRA-Permitted Hazardous Waste Management Unit (Similar to G203, G1009, G1107, G1109, and G1110) (NOTE: This drawing is not to scale.)

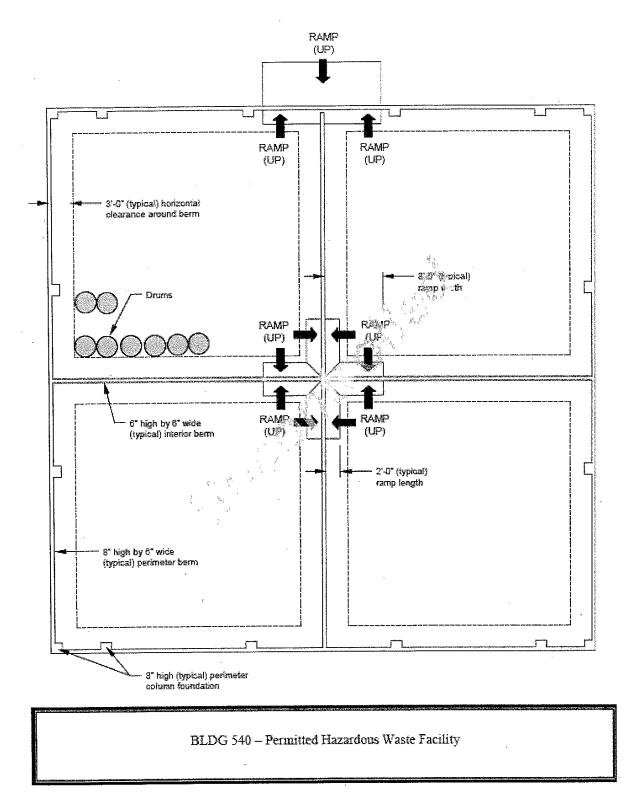


Figure 6-2. PCD Building 540

Table 6-1. Decision-Making Process to Determine Hazardous Constituents of Concern for PCD RCRA Hazardous Waste Management Units (G203, G1009, G1107, G1109, G1110, and Building 540)

Questions to Aid in Decision-Making	Answers to Aid in Decision-Making
1. What was stored in this Hazardous Waste Management Unit?	
2. What hazardous waste codes were associated with the material/waste stored in	
this Hazardous Waste Management Unit?	
3. What are the monitoring analytical results for this Hazardous Waste	
Management Unit?	
4. Have there been any known/recorded spills for this Hazardous Waste	
Management Unit?	
a. If so,	
i. What was spilled?	
ii. How was spill decontaminated?	
iii. What CO or EPA waste codes were associated with the	
material that was spilled?	
iv. What waste codes were associated with wastes generated as a	
result of spill decontamination?	
v. How many known/recorded spills? (if more than one spill,	
answer questions for i, ii, and iii above)?	
5. Have inspection records been reviewed for this Hazardous Waste Management	
Unit?	
a. If so,	
i. What did the records reveal about what was stored?	

Table 6-1. Decision-Making Process to Determine Hazardous Constituents of Concern for PCD RCRA Hazardous Waste Management Units (G203, G1009, G1107, G1109, G1110, and Building 540) (Continued)

Answers to Aid in Decision-Making

Table 6-2. RCRA-Permitted Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110 Closure Performance Criteria

Media and Parameters ^a	Decontamination/Closure Verification Criteria		
Air Samples			
Mustard Agent (HD, HT)	GPL $(0.00002 \text{ mg/m}^3 \text{ HD})$		
Concrete Chip Samples (Following Spalling) ^b			
Mustard Agent (HD, HT)	Non-detectable		
Thiodiglycol (TDG)	Non-detectable ^c		

Notes:

- Additional Parameters may be added based on constituents of concern identified at the time of closure, based on **Figure 6-1** decision-making process. Additional constituents of concern will be subject to approval by CDPHE.
- If the option of spalling is selected or top 1/4-inch of flooring is removed, PCD will achieve the amount needed for solid sampling results.
- TDG is not a common commercial or industrial chemical. TDG can be used to screen for the approximate concentration of other constituents when a numerical relation exists with one or more other compounds. TDG can be used as a marker compound when a non-numerical relation exists with one or more compounds. The following properties make TDG a good candidate for use as a mustard agent screening compound for the organic constituents of concern and a marker compound for metals: it is easy to detect; the analytical reporting limit is relatively low; and it is relatively persistent in the environment due to its low volatility. Regarding TDG, USACHPPM states: "Its presence in soil or water can be used as an indicator of past contamination with agent HD, although it is not unique to HD degradation due to the possible commercial application of thiodiglycol in the manufacture of soap products and polymers" (USACHPPM, 1999, pg. F-2).

GPL = general population limit mg/kg = milligrams per kilogram mg/m³ = milligrams per cubic meter

ppb = parts per billion

Table 6-3. RCRA-Permitted Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110

Confirmatory Sampling and Analysis Methods

Sample Source ^a	No. of Samples	Sampling Method	Analytical Parameters	Sample Container	Sample Collection Preservative	Analytical Method	Sample Holding Time
RCRA-Permitted Hazardous Waste Management Unit Interior Air Sample	Two sampling cycles for each unit	Continuous low-level air monitor	Mustard	N/A	N/A	To be provided per Permit Condition I.J.1	N/A
Solids ^b	Number of samples will be based on	Bias sampling	Mustard	Glass	4°C	To be provided per Permit Condition I.J.1	30 days
	size of storage area sample grid created ^c		Thiodiglycol	Glass	4°C	To be provided per Permit Condition I.J.1	30 days
	gria created		SVOCs	Amber glass	4°C	SW-846 Method 8270D ^d	7 days (Extraction); 40 days (Analysis)

Notes:

N/A = not applicable

RCRA = Resource Conservation and Recovery Act

SVOC = semivolatile organic compound

Additional analytical methods may be added based on constituents of concern identified at the time of closure, based on **Figure 6-1** decision-making process. Additional constituents of concern will be subject to approval by Colorado Department of Health and Environment (CDPHE).

Solids will only be bias sampled if there are known/recorded spills, visual evidence of stains, discolorations, cracks, or gaps in flooring.

This is based on USEPA guidance to determine the number of samples as described in Chapter Nine of *Test Methods for Evaluating Solid Waste*, *Physical/Chemical Methods*, SW-846, current edition unless otherwise specified as referenced in the CDPHE Hazardous Waste Regulations (6 CCR 1007-3)..

Methods listed are from *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, current edition unless otherwise specified as referenced in the CDPHE Hazardous Waste Regulations (6 CCR 1007-3).

Table 6-4. RCRA-Permitted Hazardous Waste Management Units G203, G1009, G1107, G1109, and G1110 Air Monitoring Sampling Requirements

Item	Air Monitoring Sampling Conditions
RCRA-Permitted Hazardous Waste Management Unit Interior Air Sample	4 hours at or above 70°F before monitoring

Note:

After the conditions listed in this table are established, MINICAMS® or Depot Area Air Monitoring System (DAAMS) samples will be collected. If results meet closure performance standards in **Table 6-2**, the structure or equipment is considered clean closed. DAAMS or other confirmatory method that can detect to the concentration required for closure will be used to confirm MINICAMS results if MINICAMS alarm for chemical agent.

Table 6-5. RCRA-Permitted Hazardous Waste Management Unit Building 540 Closure Performance Criteria

Media and Parameters	Decontamination/Closure Verification Criteria			
Rinsewaters				
Chemicals of Concern ^a	Final rinse sample to non-detect for chemicals of concern			
Bias Sampling (Concrete Chip Samples) ^b				
Chemicals of Concern	Non-detect for chemicals of concern			

Notes:

^a Prior to Building 540 closure activities, an assessment will be conducted and historical and operating records of wastes, as well as waste codes Building 540 is permitted to store, will be reviewed to determine chemicals of concern for Building 540 closure.

Solids will only be bias sampled if there are known/recorded spills, visual evidence of stains, discolorations, cracks, or gaps in flooring.

Table 6-6. RCRA-Permitted Hazardous Waste Management Unit Building 540 Confirmatory Sampling and Analysis Methods

Sample Source	No. of Samples	Sampling Method	Analytical Parameters	Sample Container	Sample Collection Preservative	Analytical Method ^a	Sample Holding Time
Rinsewaters	Minimum of one (1) per each of	Grab	Regulatory Levels of Chemicals of Concern:				
	the four waste		SVOCs	Amber glass	Cool 4°C	8270D	7 days (Extraction); 40 days (Analysis)
	segregation areas.		Halogenated VOCs	3x40mL glass, VOA vial, no headspace, PTFE septa cap	Cool 4°C; HCl or NaHSO ₄ to pH < 2	8260B	14 days with preservatives; 7 days without preservatives
			Pesticides	Amber glass	Cool 4°C	8081B	7 days (Extraction); 40 days (Analysis)
			Nitrates	Amber glass	Cool 4°C	8330A	14 days (Extraction); 40 days (Analysis)
			Metals	HDPE plastic bottle	Cool 4°C; HnO_3 to $pH < 2$	6010C or 6020A and 7470A (Hg)	180 days and 28 days (Hg)
Solids ^b	Number of samples	Bias Sampling	SVOCs	Amber glass	Cool 4°C	8270D	14 days (Extraction); 40 Days (Analysis)
	will be based on size of		Halogenated VOCs	Amber glass	Cool 4°C	8260B	14 days (Extraction); 40 days (Analysis)
	storage area sample grid created. ^c		Pesticides	Amber glass	Cool 4°C	8081B	14 days (Extraction); 40 days (Analysis)
			Nitrates	Amber glass	Cool 4°C	8330A	14 days (Extraction); 40 days (Analysis)
			Metals	HDPE plastic	Cool 4°C	6010C or 6020A and 7470A (Hg)	180 days and 28 days (Hg)

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Table 6-6. RCRA-Permitted Hazardous Waste Management Unit Building 540 Confirmatory Sampling and Analysis Methods (Continued)

Notes:

- ^a Methods listed are from *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, current edition unless otherwise specified, as referenced in the CDPHE Hazardous Waste Regulations (6 CCR 1007-3).
- Solids will only be bias sampled if there are known/recorded spills, visual evidence of stains, discolorations, cracks or gaps in flooring.
- This is based on USEPA guidance to determine the number of samples as described in Chapter Nine of *Test Methods for Evaluating Solid Waste*, *Physical/Chemical Methods*, SW-846, current edition unless otherwise specified as referenced in the CDPHE Hazardous Waste Regulations (6 CCR 1007-3)...

HCl = hydrochloric acid

HDPE = high-density polyethylene

 $\begin{array}{lll} Hg & = & mercury \\ HnO_3 & = & nitric \ acid \\ mL & = & milliliter \end{array}$

 $NaHSO_4$ = sodium bisulfate

PTFE = polytetrafluoroethylene

SVOC = semivolatile organic compound VOA = volatile organic analysis

VOA = volatile organic analysis VOC = volatile organic compound

Table 6-7. PCD Maximum Waste Inventory

Hazardous Waste Management Unit	Number of Permitted Units	Storage Capacity per Unit	Total Maximum Waste Inventory
RCRA-Permitted Hazardous Waste Management Units G203, G1009, G1107, G1109 (liquid waste storage)	4 Igloos	300 rounds or equivalent volume of 330 gallons	1,200 rounds or 1,320 gallons
RCRA-Permitted Hazardous Waste Management Unit G1110 (solid and liquid waste storage)	1 Igloo	144, 55-gallon drums	7,920 gallons (solid waste)
RCRA-Permitted Hazardous Waste Management Unit Building 540	1 Building	240, 55-gallon drums	13,200 gallons

Note:

RCRA = Resource Conservation and Recovery Act